Title: Supporting Point-to-Point Intracluster
Communications Between Replicated Cluster Nodes Docket No. 223281 (312) 616-5600 Leydig, Voit & Mayer Mark Joy 96 LOCAL AREA NETWORK 197 WIDE AREA NETWORK SPEAKERS PRINTER 185 9 <u>18</u> 180 110 KEYBOARD NETWORK INTERFACE MODEM -170 95 OUTPUT PERIPHERAL INTERFACE 160 USER INPUT INTERFACE 161 MOUSE -156 100 0 VIDEO INTERFACE 721 SYSTEM BUS 155 REMOVABLE NON-VOL MEMORY INTERFACE 750 147 -152 PROGRAM DATA PROCESSING UNIT 151 146 OTHER PROGRAM MODULES NON-REMOVABLE NON-VOL MEMORY INTERFACE 5 FIG. 130 137 133 134 OTHER PROGRAM MODULES 13 APPLICATION PROGRAMS PROGRAM DATA SYSTEM MEMORY (ROM) 131 BIOS OPERATI SYSTEI 132 OPERATING SYSTEM (RAM) ROM)

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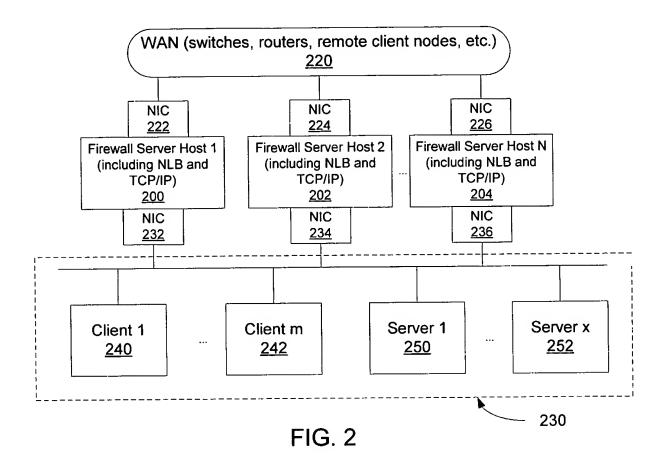
Filed:

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300 )	302	304	306	308	310	312
Ethernet Source	Ethernet Destination	ARP Message Type	ARP Source IP	ARP Source MAC	ARP Target IP	ARP Target MAC

FIG. 3

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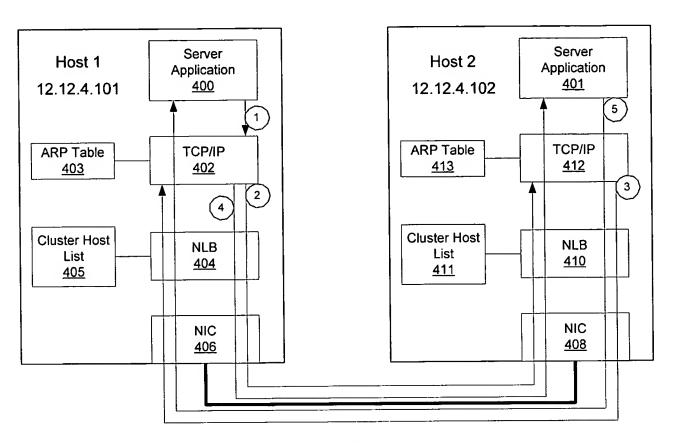
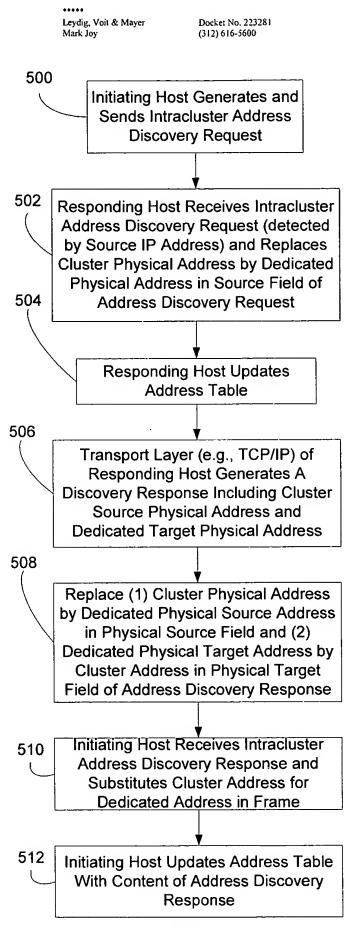


FIG. 4



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FIG. 5

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Ethernet	ARP	ARP	ARP	ARP Target   ARP	ARP
Destination	Type	Source IP	Source MAC	IP	Target MAC
600 02-bf-aa-bb-cc-dd ff-ff-ff-ff-ff	Request	Request 12.12.4.101	02-bf-aa-bb-cc-dd   12,12,4,102		00-00-00-00-00
610 02-bf-aa-bb-cc-dd ff-ff-ff-ff-ff	Request	Request 12.12.4.101	03-bf-0c-0c-04-65 12.12.4.102		00-00-00-00-00
620   02-bf-aa-bb-cc-dd   03-bf-0c-0c-04-65   Response   12.12.4.102	Response		02-bf-aa-bb-cc-dd 12.12.4.101		03-bf-0c-0c-04-65
630   02-bf-aa-bb-cc-dd   03-bf-0c-0c-04-65   Response   12.12.4.102	Response		03-bf-0c-0c-04-66   12.12.4.101		02-bf-aa-bb-cc-dd
640 02-bf-aa-bb-cc-dd 02-bf-aa-bb-cc-dd	Response		03-bf-0c-0c-04-66		02-bf-aa-bb-cc-dd
c-dd	의	의	<b>02-bf-aa-bb-cc-dd</b>   Response   12.12.4.102	<b>02-bf-aa-bb-cc-dd</b>   Response   12.12.4.102	<b>02-bf-aa-bb-cc-dd</b>   Response   12.12.4.102   03-bf-0c-0c-04-66   12.12.4.101

700 Initiating Host Generates and Sends Intracluster Request Including **Dedicated Destination Address** 702 Responding Host Receives Intracluster Request (detected by Source IP Address) and Substitutes Cluster Address for Dedicated Address in **Destination Address Field of Request** 704 Responding Host Generates Response including **Dedicated Physical Destination Address (based** 

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706

Initiating Host Receives Response to Intracluster Request (detected by Source IP Address) and Substitutes Cluster Address for Dedicated Address in **Destination Address Field of Response** 

upon ARP Table Entry Corresponding to Source IP Address Within Request)

FIG. 7